

**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

Development of California)	Docket No. 06-NSHP-1
New Solar Homes Partnership)	

**COMMENTS OF PV NOW ON THE NEW SOLAR
HOMES PARTNERSHIP PROGRAM**

PV NOW is a coalition of the leading photovoltaic companies that joined to aggressively expand North American distributed, grid-connected solar photovoltaic market opportunities and eliminate market barriers. PV Now's members include Sharp Solar, Schott Solar, Shell Solar, Evergreen Solar, SunPower, PowerLight, SunEdison, and Energy Innovations.

PV NOW appreciates the opportunity to provide comments on the California Energy Commission's New Solar Homes Partnership program. Given that the overriding goal of this program is help new homes developers adopt solar energy technology as part of standard new residential construction practices, it is essential that the rules of this program meet the needs of builders operating in the marketplace today. Given the high cost of housing in California and the skepticism toward solar energy that exists in segments of the developer community, the details of the program rules will determine whether the program succeeds. PV NOW believes that it is especially important that the program's first year of operation result in substantial market penetration and that the program build on that momentum in the years that follow.

Thank you for your consideration of the comments below. We look forward to working with all stakeholders to make this program a success.

Respectfully submitted,

_____/s/_____
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SUMMARY OF RECOMMENDATIONS

- *Incentive level start at \$2.60/W in 1/1/07 with energy efficiency tiers at \$3/W and \$3.25/W for 15% and 25% above Title 24, respectively*
- *Make energy efficiency funds available to fund the efficiency premiums on the tiers*
- *Support annual reductions in incentive levels*
- *Installation guidelines to require 90% of a developer's PV arrays be installed in an orientation window between 135 degrees and 270 degrees (SE to W) and 10% architectural shading factor, 10% landscaping shading factor*
- *36 month reservation window, reservation fee at half of 1% (equal to current SGIP program)*
- *Support utility administration of program because builders and integrators already have to work closely with utilities on interconnection*
- *Encourage CEC to work with CPUC to support electric rate design that supports rather than undermines the California Solar Initiative*

INCENTIVE DESIGN

The incentive design remains the single most important factor in the New Solar Home Partnership Program's success. To effectively penetrate the new residential construction market in California, the CEC should offer simple, up-front incentive payments for builders that will not expose them to undue risk or delays in receiving payment, either of which would discourage their participation in the program. These incentives must be sufficient to drive the solar market for mainstream developers.

Due to the nature of planning and construction cycles in the new residential homes market in California, developers typically do not have lot plans when submitting rebate reservations, making it difficult for them to budget for rebates based on performance estimations. Reducing the uncertainties builders have to face as they decide whether to apply for solar incentive funds will make it more likely that they will participate in the

program. To accommodate this reality while promoting performance, PV NOW urges that CEC create clear, strong installation guidelines including:

- **90% of a developer's PV installations must be oriented within a window from 135 degrees to 270 degrees (SE to W).** This orientation window is defined enough to ensure proper performance and peak production but big enough to ensure flexibility. PV Now believes the program will be most likely to succeed if it allows for entire residential developments to go solar. In any major residential development, it is likely a small portion of the rooftops (5-10%) may have to include an East orientation, which is the reason for this formula. Promoting the comprehensive deployment of solar throughout a development rather than a piecemeal approach creates economies of scale and faster installations.
- **No more than 10% architectural shading factor and no more than 10% landscaping shading.** If necessary the HERS T24 inspectors can be trained to verify PV installations to ensure they meet these guidelines.

ENERGY EFFICIENCY REQUIREMENT.

Title 24 standards were increased by 14% in the fall of 2005 to make California's energy efficiency standards a national model. These standards are scheduled to be increased yet again in 2008. Given the high bar that is currently in place for energy efficiency in California, and the failure of most new home builders to make use of the Energy Commission's solar incentives to date, PV NOW recommends that the solar incentives be set up in a way that allows builders who meet Title 24 to access a baseline solar incentive. In addition, to encourage more ambitious efficiency measures, the program should be designed to reward builders who exceed Title 24 with additional incentives through a tiered approach, below:

PROPOSED INCENTIVE DESIGN FOR JANUARY 1, 2007

Energy Design Relative to T24 Standards	Complies	Exceeds by 15%	Exceeds by 25%
Incentive Premium	0%	15%	25%
Incentive Level (per Watt)	\$2.60	\$3.00	\$3.25

This approach sets up an incentive that strongly encourages all builders to go the extra mile and build homes that exceed Title 24. However this incentive design also does not exclude those builders who only meet Title 24, allowing the program to cast a wide net in the first year to encourage a broad spectrum of builders to participate. Furthermore, offering three tiers of incentives will provide more options to the builders, which is especially valuable in the early years of this program. Over time, the CEC will be able to fine tune the incentives based on market response.

PV NOW strongly encourages the CEC to make energy efficiency funds available to support the efficiency premiums in the incentive model shown above. This will allow the New Solar Homes Partnership solar incentive funds go as far as possible while leveraging additional energy efficiency investments from builders that might not choose to do so without the solar component.

Given the longer planning cycles involved in new residential construction, PV NOW proposes that the CEC transition from a six month incentive reduction cycle to an annual incentive reduction.

PERIOD OF RESERVATION

As many of new home developments have a long design and build schedule, the CEC should provide a 36 month reservation window, with funding reserve-able with a Tentative Subdivision Map. While this may seem long, it is the planning schedule that builders work within. Such a reservation will be an excellent tool for builders to plan out all aspects on implementing, selling and marketing solar communities. To prevent phantom applications, the CEC should implement a reservation fee that is equivalent to what is now in place for the CPUC – half of 1%.

ADMINISTRATION OF REBATE FUNDING

PV NOW supports allowing the utilities to administer the program given that the builders and PV integrators have to coordinate with the utilities extensively already on interconnections.

REBATE LEVELS

The CEC should establish declining rebate levels for as long a period as possible to match the long term planning and decisions that builders need to make (see chart above for starting incentive level).

ELECTRIC RATE DESIGN

PV NOW would also like to highlight the critical importance of electric rate design to the success of the California Solar Initiative and to the New Solar Homes Partnership program in particular. PG&E's recent elimination of the E-7 Time-of-Use rate and the creation of its successor, the E-6, will adversely affect solar customers by diminishing the incentive to reduce energy consumption during peak hours, when electricity is most expensive and most needed. PV NOW would welcome any effort on the part of the Energy Commission to work with the CPUC to ensure electric rate design supports, rather than undermines, the goals of the California Solar Initiative and the objective of encouraging solar and efficiency investments.

CONCLUSION

PV NOW appreciates the opportunity to comment on the staff proposal and to participate in the New Solar Homes Partnership Committee. We commend the Energy Commission's efforts to seek input on program design and look forward to helping create a residential new construction solar program that will be a model for other states.